Appn. Number 10/653,678 Michael John Keogh Nguyen/2831 Amnt. E

Amendment to the Claims

Cancel all claims 1-34 . Substitute claims 35-51

35 (currently amended) A cable construction comprising an insulated wire or a plurality of insulated wires formed into a core or a plurality of insulated wire cores and a dual layer thermoplastic polymer-based non-halogen protective sheath around said insulated wire or a plurality of insulated wires formed into a core or a plurality of insulated wire core consisting of:

(i) an outer intumescing solid organo, non-foamed thermoplastic polymer layer as means for providing thermal, ~~fire~~, physical and mechanical protection; and

(ii) an inner solid, non-foamed thermoplastic polymer layer as means for providing a ~~second~~ layer of fire protection thereby providing said cable construction with initial and long term protection against heat and combustion.

36 (currently amended) The protective cable sheath component defined in claim 35 wherein the outer layer contains a ~~polypropylene or polypropylene copolymer~~ homopolymer or a copolymer of propylene and one or more alpha olefins having 4-12 carbon atoms as the base resin, wherein the portion of the copolymer based on propylene is at least 60 percent by weight based on the weight of the copolymer.

37 (previously presented) The protective cable sheath component defined in claim 36 wherein the intumescing material of the outer layer is an activated melamine polyphosphate or a melamine phosphate or a melamine pyrophosphate alone or admixed with about an equal quantity of melamine resin.

38 (currently amended) The protective cable sheath component defined in claim 37 wherein the intumescing materials are in about 5 to about 100 parts by weight contained in 100 parts by weight of the ~~polypropylene~~ homopolymer or ~~polypropylene copolymer~~ copolymer of propylene.

39 (previously presented) The protective cable sheath component defined in claim 35 wherein the outer layer is of a predetermined thickness to provide sufficient thermal protection to the flame retarded inner layer whereby the combination substantially prevents flame spread in cable constructions.

40 (previously presented) The protective cable sheath component defined in claim 35 wherein the inner layer is a non-halogen extrudable composition of

(A) a copolymer of ethylene and an unsaturated ester comonomer of

Amendment to the Claims

a vinyl carboxylate wherein the carboxylate group has 2 to 5 carbon atoms;

(B) the copolymer is, optionally, modified with an anhydride of an unsaturated aliphatic diacid having 4 to 10 carbon atoms:

(C) the copolymer (A) has an ester content in the range of about 15 to 40 percent based on the weight of the copolymer and a melt index in the range of about 2 to about 25 grams per 10 minutes; and, for each 100 parts by weight of components (A) and about 100 to 250 parts by weight of magnesium hydroxide, coated or coated.

41 (previously presented) The inner layer defined in claim 40 wherein the unsaturated ester comonomer is vinyl acetate.

42 (currently amended) A plenum or riser cable comprising a conductor core and at least one layer surrounding the core comprising the dual layer thermoplastic non-halogen protective cable sheath defined in claim 35.

43 (currently amended) A dual layer thermoplastic polymer-based, non-halogen, corrosion resistant insulated wire construction consisting of :

(i) an outer intumescing solid organo non-foamed thermoplastic polyolefin layer as means for providing thermal, ~~fire~~, physical and mechanical protection; and

(ii)an inner ~~polypropylene or polypropylene copolymer~~ layer of a homopolymer or copolymer of propylene and one or more alpha olefins having 4-12 carbon atoms, wherein the portion of the copolymer based on propylene is at least 60 percent by weight of the copolymer, as means for providing electrical insulation and fire and corrosion protection for the construction,said dual layer is a predetermined thickness of at least 5 mils.

44 (currently amended) The insulated wire construction defined in claim 43 wherein the outer layer is an extrududable composition consisting essentially of;

(a) a ~~polypropylene or polypropylene copolymer~~ homopolymer or copolymer of propylene and

(b) intumescing material that is an activated melamine polyphosphate or a melamine phosphate or a melamine pyrophosphate alone or admixed with about an equal quantity of melamine resin.

45 (currently amended) The insulated wire construction defined in claim 44 wherein

the intumescing materials are in about 5 to 100 parts by weight contained in 100 parts by weight of the ~~polypropylene or polypropylene copolymer.~~ homopolymer or copolymer of propylene.

46 (previously presented)The insulated wire construction defined in claim 43 wherein the outer layer is of a predetermined thickness of at least 1 mil to provide sufficient thermal protection to the flame retarded inner layer whereby the combination substantially reduces flame spread along the construction.

47 (currently amended) The thermoplastic dual layer non-halogen insulated wire construction defined in claim 43 wherein the inner insulating layer is formed of ~~a~~ the ~~polypropylene or polypropylene copolymer~~ homopolymer or copolymer of propylene and contains sufficient acid neutralizer to prevent conductor corrosion.

48(previously presented) The inner insulating layer defined in claim 47 wherein the acid neutralizer is magnesium or calcium hydroxide.

49 (currently amended) The acid neutralizer defined in claim 47 is in about 0.5 to 50 parts by weight contained in 100 parts by weight of ~~polypropylene or polypropylene copolymer.~~ the homopolymer or copolymer of propylene

50 (currently amended) A building wire comprising a metal conductor protected against fire and corrosion by the thermoplastic dual layer defined in claim 43.

51 (currently amended) An automotive primary wire insulation comprising a metal conductor protected against fire and corrosion by the thermoplastic dual layer defined in claim 43.